

Considerations on the Use of Oral Reading as Informal Assessment in the EFL Classroom

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1 Introduction

Oral reading can be used in the informal assessment of learners, and it is typically based on classroom instruction (Alderson, 2000). An oral reading test commonly entails the following steps: Learners are asked to read a piece of text aloud (generally with a short preparation time before reading), and then their performance is scored according to a particular scoring criterion, and judgments are made about their ability (Alderson, 2000; Heaton, 1975). Regarding the use of oral reading as a testing tool, there seems to be a belief or an assumption that a test involving reading aloud may reflect some aspects of foreign language skills. In fact, a survey of ESL teachers revealed that they valued the use of students' oral reading to assess aspects of written language processing, such as knowledge of the grapheme-phoneme relationship, knowledge of syntactic structures, and overall comprehension of text (Griffin, 1992). Mozumi and Adachi (2004), in surveying teachers of Japanese as a foreign language, found that the teachers had the students read aloud in order to evaluate their reading comprehension, strengths and weaknesses in reading, and general achievement levels.

Against this background, this article discusses and examines the possibilities of oral reading for informal assessment. First, we briefly analyse the process of oral reading in order to determine what is involved in reading a written text aloud. Regarding the outcome of the analysis, we then elucidate some topics— theoretical and practical—that can be highlighted in the implementation of oral reading tests.

2 Brief Analysis of Oral Reading for Assessment

2.1 Reading-aloud Process

The process of reading aloud can be analysed in the following two phases: the processing of written language and its speech output. The former constitutes a series of internal processes that are in line with the general processes of reading. It begins with the decoding of words and the identification of their meanings by accessing the mental lexicon (i.e. the memory in which lexical information is stored) in a process called word recognition (Grabe, 2009). Next is sentence parsing, which involves the grammatical analysis of a sentence into meaningful word groups (Grabe, 2009; Grabe & Stoller, 2011). For example, 'The pen fell on the floor' can be analysed as a sentence consisting of two constituent units (i.e. 'the pen fell' and 'on the floor').

Comprehension then ensues on the basis of word recognition and sentence parsing. In this process, the reader generates 'basic clause-level' units of meaning (Grabe & Stoller, 2011). The meaning is something literally expressed in the text and is independent of something outside the text (e.g. a particular context of use). As the processing progresses, the reader builds a situation model of interpretation (Grabe, 2009) by connecting the text with the context and the reader's existing knowledge of general concepts, grammar, vocabulary, and pragmatics (Richards & Schmidt, 2010).

Phonetic planning of articulation comprises an operation for exploring how text should be articulated with 'appropriate' pronunciation and prosody. Thus, an internal speech rendition of text is built. The process of phonetic planning is assumed to rely on the preceding phases of reading, that is, word recognition, sentence parsing, and comprehension. After a phonetic plan is made, it is executed in the form of speech output, which involves the overt production of speech sounds.

Figure 1 illustrates a 'sketch' model of the discussed oral reading process.¹ The processing components inside the square frame (i.e. word recognition,

sentence parsing, comprehension and phonetic planning) work in the reader's mind (i.e. as covert and unobservable processing components). Articulation, which is outside the square, is an overt component that can be directly observed. The processes of word recognition, sentence parsing, and comprehension are assumed to work in parallel with, have an influence on, and complement each other (Richards & Schmidt, 2010). These processes are depicted in Figure 1, with solid-line arrows between word recognition, sentence parsing, and comprehension in both directions. The broken-line arrows connecting both word recognition and sentence parsing with phonetic planning indicate that phonetic planning can be carried out (and articulation eventually achieved) without comprehension (or remembering much of what was read). This phenomenon has often been referred to as 'parrot reading' or 'eye-mouth reading' (Miyasako, 2008; West, 1955; Yonezaki & Ito, 2012).

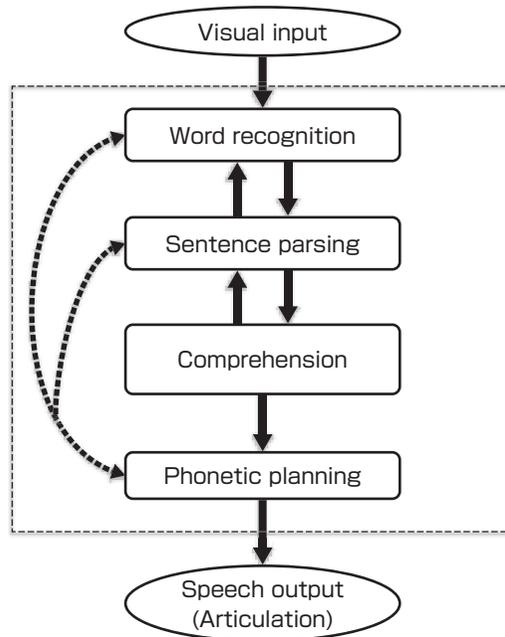


Figure 1 A simplified model of oral reading

2.2 General Assumptions of Oral Reading Tests

The model of the oral reading process discussed in the previous section is based on the following assumption: Oral reading contains several distinct internal and external components, some of which may function interactively; in this regard, reading-aloud behaviour can be considered as a manifestation of the processes of these components; if so, oral reading supposedly requires effective and coordinated operation of the aforementioned component skills.

This general assumption about oral reading seems to suggest that there are two possible directions in the use of oral reading tests. The first involves examining the overt aspects of student performance, which correspond to 'speech output', as shown in Figure 1. Here what is considered is the quality of articulatory production per se, or something that can be observed directly. This type of assessment, therefore, mainly concerns phonological and articulatory aspects of performance (e.g. pronunciation, intonation, stress, rate of reading, and other aspects of speech delivery). The second direction entails investigating the processes that underlie students' oral reading performance: word recognition, sentence parsing, and phonetic planning (Figure 1). Notably, they are usually deemed 'covert' because they are generally unobservable and can only be inferred.

To summarise, from a componential view of oral reading, which dissects the process into its components as displayed in Figure 1, the outcome of reading aloud (i.e. overt reading-aloud behaviour) can be compared to the 'sum' of the component processes, which is supposed to contain and mirror different aspects of performance (both internal and external). Therefore, concerning what can be assessed through oral reading, the following two perspectives should be distinguished: assessing oral reading performance and assessing the processes that underlie the performance. In the following sections, possible targets of assessment in oral reading tests are examined from these points of view.

3 Assessing Oral Reading Performance

3.1 Pronunciation

One type of information gained from students' oral reading performance is about their pronunciation skills in the target language. Pronunciation is one of the core skills in using spoken language (Goh & Burns, 2012), and the production of individual sounds seems to be a fundamental skill of language production. Underhill (1987) argues that reading aloud is suitable for assessing this aspect of performance. In practice, it seems important to consider what phonemes (i.e. consonants and vowels) should be the targets of assessment. In English, for example, it is generally accepted that there are 24 consonants and 20 vowels (Richards & Schmidt, 2010). To implement an oral reading test, teachers designate particular phonemes as evaluation targets and prepare an appropriate scoring key for each phoneme.

The vocalisation of connected text not only requires the skills for pronouncing individual sounds but also entails numerous speech features such as assimilation, elision, reduction, and linking, if the text is to be read aloud at a natural speed. Assimilation refers to a phonological process in which a speech sound is modified under the influence of a nearby sound and becomes similar or identical to it (Richards & Schmidt, 2010). For example, when a /b/ sound is followed by an /m/, the preceding /b/ may be transformed into a sound that is highly similar to an /m/ sound, as in the word 'submarine' (e.g. pronounced not as [ˈsʌbməri:n] but as [ˈsʌmməri:n]). Elision is the omission of a sound or sounds in speech, in which, for example, the word 'mostly' can be pronounced as [ˈməʊsli] without a /t/ sound (Richards & Schmidt, 2010). Linking takes place when the final sound of a word connects to the initial sound of the next word (e.g. 'blue ink' pronounced with a /w/-like sound between the words 'blue' and 'ink'; Richards & Schmidt, 2010).

By having students read aloud and observing their performance, it is possible to make an instructional judgment about how well they produce the

mentioned phonological features in the reading aloud of connected text.

3.2 Stress, Rhythm, and Intonation

Prosodic features of language production can also be assessed from students' reading-aloud performance. Prosody refers to the aspects of pronunciation which extend over stretches of speech rather than individual sounds (Pennington, 1996). It includes the patterns of stress in individual words and sentences as well as those of rhythm and intonation in longer utterances (Pennington, 1996).

Reading orally with the mentioned features calls on the reader to add some elements of meaning at sentence and discourse levels (Underhill, 1987). Intonation, for example, is used to carry information over and above what is literally expressed (Richards & Schmidt, 2010). The units of meaning (i.e. idea units) generated in the internal processes of reading aloud usually correspond to prosodic units (e.g. pause groups, tone groups, and breath groups; Pennington, 1996). Therefore, the speech output of oral reading seems to have a natural association with sentence parsing and comprehension.

3.3 Rate of Reading

The rate (or speed) of reading aloud is one of the most recognisable aspects of oral reading performance. This relates to an aspect of fluency, which may be characterised by a certain type of native-likeness or naturalness (Housen, Kuiken, & Vedder, 2012; Richards & Schmidt, 2010). The practical consideration here is the rate at which reading should be regarded as 'natural' and hence 'appropriate' in the evaluation of performance. A review of related literature shows that, in American English, the rate of speech ranges from 130 to 330 wpm,² from which a fair generalisation can be made that a possible 'normal' rate may be approximately 200 wpm (Takefuta, 1984).

For native speakers, reading aloud at this rate may be a 'normal' and

'natural' action. However, for foreign language learners, it may not always be so, for it is likely that they cannot operate their articulatory muscles in the same manner that native speakers do (Kadota & Noro, 2001). Foreign language learners, therefore, may have difficulty in reading (orally) at a speed of approximately 200 wpm.

Then what is the speed that can be a benchmark of evaluation for foreign language learners? Takanashi and Ushiro (2000) pointed out that a 'normal' reading rate could be between 100 and 150 wpm and that it was the rate at which oral reading is frequently conducted in EFL classrooms. If this is the case, it may be an idea for teachers to set a speed of approximately 125 wpm as a 'normal' rate for foreign language learners.

4 Assessing Underlying Aspects of Performance

4.1 Word Recognition Skills

Reading aloud can be used to assess students' skills in word recognition. A crucial dimension of assessment constitutes knowledge of sound-spelling rules. Processing in word recognition requires the skills to translate written language into the spoken forms in the mind (e.g. the word 'rain' into /rein/), which is called 'decoding' (Kadota & Noro, 2001). This presupposes a solid knowledge base of sound-spelling relationships on the part of the reader. Therefore, it is assumed that reading-aloud behaviour can manifest the reader's knowledge of sound-spelling rules.

Another dimension of assessment is decoding fluency, which can be considered as how quickly the reader is able to decode words. Decoding fluency can be evaluated by determining the speed at which the student read aloud (or sound out). However, because of learners' limited command of articulatory skills in a foreign language (see also 3.3), performance should be examined according to a criterion different from that for native speakers.

4.2 Knowledge of grammar

As indicated in 2.1, reading aloud includes the process of sentence parsing, in which a sentence is divided into word groups or constituent units of meaning. This aspect of syntactic processing can be assessed with the use of oral reading tests. An underlying assumption here is that successful analysis of a sentence into units of meaning relies on knowledge of grammar, such as that of determiners, nouns, verbs, prepositions, and tenses.

In practice, the performance aspect subject to evaluation is whether the reader's grouping of words in text is appropriate. Because word groups are generally surrounded by pauses and hence form pause groups (Pennington, 1996), performance assessment involves observing students' pausing behaviour (i.e. where they pause when reading aloud). For example, if a student reads aloud 'When I was a student, I liked playing tennis.' as 'When I / was a / student, I / liked playing / tennis.' (slashes indicate pauses), then he or she may be judged to fail to apply his or her grammatical knowledge to performance or to have insufficient knowledge of grammar.

4.3 Comprehension

As discussed previously, it can be assumed that reading-aloud performance builds on lexical, grammatical, phonological and comprehension processing. If so, a student who reads aloud with little comprehension is more likely to make errors in prosody and to misplace phrase boundary pauses (Nara & Noda, 2003). It is possible, then, that high performance suggests clear comprehension of the text (Underhill, 1987).

When having EFL students read aloud for assessment, however, teachers should remember that the students' cognitive abilities might not be used sufficiently for text comprehension (or for the memory of what they have read). In the process of reading aloud, a major amount of cognitive capacity for information processing can be consumed in carrying out the processes of word

recognition, sentence parsing, phonetic planning, and articulation.³ Concerning this issue, several studies suggest that reading aloud may negatively affect text comprehension (e.g. Bernhardt, 1983; Hatori, 1977; Takahashi & Takanashi, 1987).

If teachers ensure that students' attention capacity is saved for comprehension processing, reading aloud can be accompanied by comprehension. For this to happen, the use of oral reading tests should be restricted to text materials that are within learners' ability (Nakano, 2015; Nara & Noda, 2003). However, when the attention of students is directed toward comprehension, it is possible that the quality of articulation might not be attended accordingly, resulting in a situation in which, for example, the student reads with clear comprehension but with poor pronunciation. If this happens, evaluating comprehension from the quality of reading-aloud performance will be misleading.

Therefore, given the somewhat unstable relationship between the quality of reading-aloud output and comprehension, teachers cannot rely entirely on oral reading tests to assess text comprehension. Instead, it seems safer to use them as complements to other type of tests.

4.4 Proficiency

The coordination of the component processes should be required for a successful speech output of written text (see 2.1). If a learner's proficiency in the target language is higher, his or her skills in executing the processes is more likely to be higher. This leads to an assumption that there may be a possible link between reading-aloud performance and foreign language proficiency, on which oral reading for proficiency assessment seems to be based. In an empirical investigation, Ikeda and Takeuchi (2002) examined how the scores of an oral reading test were relevant to those of a cloze test. In their study, the cloze test was assumed to measure general proficiency in a foreign language. It was found that the oral reading test scores significantly correlated with the cloze

test scores with correlation coefficients of over .70. From this result, Ikeda and Takeuchi (2002) argued that learners' proficiency levels might be reflected in their oral reading performance. In a similar line of argument, Miyasako (2002) investigated the relationship between the ability of Japanese high school students to read aloud and their proficiency levels in English. He analysed their scores of reading-aloud performance and those of a proficiency test and found a significant correlation between them.

The two studies cited appear to have given some support to the use of oral reading for assessing learner's proficiency. However, in considering the relationship between attention capacity and reading aloud (see the discussion in 4.3), the extent to which oral reading tests can measure learners' proficiency levels consistently is seemingly open to argument. Teachers, therefore, should be aware of this limitation so that they can make a proper judgment about students' proficiency levels.

The method of scoring oral reading performance may also affect the results of assessment.⁴ In connection with this issue, Fujinaga (2003), using a quantitative method of scoring (e.g. counting the number of pauses), found no significant relationship between reading-aloud performance and reading proficiency in EFL. By contrast, Fujinaga (2016) adopted teacher holistic evaluation as an assessment method and found that the yielded scores had a significant correlation with the participants' EFL reading proficiency levels. The findings of these studies suggest that teachers should pay careful attention to how student performance is scored in order to obtain valid and reliable performance data.

The effect of scoring methods on assessment results is not straightforward and further research is required. In practice, however, teachers should understand the methodological aspects of scoring that can be involved in the evaluation of performance, so that they can devise a method of scoring that is as valid and reliable as possible. This issue is discussed more in detail later in a

subsequent section.

5 Practical Issues on Implementation

5.1 General Strengths and Weaknesses of Oral Reading Tests

One of the advantages of oral reading tests is that there may be some flexibility in preparing test materials. Teachers can choose the test passages with due consideration to the style, topic, and difficulty of the target language (Underhill, 1987). When necessary, teachers can devise text material that optimally covers the points taught in class.

In addition, for optimal comparability and reliability of marking results, the same material can be employed for all students. Even when different materials are used, they can be edited and modified for more valid comparability of the test results (Underhill, 1987).

Another advantage of oral reading tests is the relative simplicity and ease of administration, which assist learners in understanding what to do. Also, the tests are generally quick to score (Underhill, 1987).

A weakness of having students read aloud for assessment is related to lack of 'authenticity'. Students will rarely be required to read a text passage or conversation aloud in a foreign language outside the classroom (Alderson, 2000; Underhill, 1987) and therefore they may feel that the task of reading aloud is not realistic and valid. Furthermore, oral reading has few communicative elements, because the exchange of new information is unlikely to occur in oral reading tests (Underhill, 1987).

Oral reading, to a large extent, taps reading skills, as suggested earlier. This can be another disadvantage when teachers conduct a reading-aloud test as part of speaking assessment. If the student's speaking skills are well developed but their reading skills are not, then there is a possibility that the assessment cannot be performed properly. Moreover, reading aloud can be regarded as a discrete skill, even in first language reading. The skills of reading aloud may

vary from person to person and even proficient readers are not always confident in their reading-aloud skills (Underhill, 1987).

5.2 Procedure-related Issues

An oral reading test can be conducted in various ways, depending on its purpose and setting. A common procedure for an oral reading test consists of the following three steps: 1) pre-reading; 2) reading aloud; and 3) a post-reading task.

In pre-reading, students are often allowed to read the script silently so that they can discern the phonetic and prosodic features corresponding to the text and meaning (Underhill, 1987). Thus, for example, phonetic planning can be enhanced before speech output.

One role of pre-reading is to mitigate the cognitively demanding nature of reading aloud, that is, the necessity to carry out linguistic processing and articulatory processing simultaneously.⁵ Pre-reading allows students to negotiate the processing stages from word recognition to phonetic planning; thus, they can sufficiently attend to the articulation of text. This is important for foreign language learners (particularly those with lower proficiency) because they often have limited facility in articulation (see also 3.3).

A post-reading task can be incorporated into an oral reading test. In many cases, particularly when the assessment target is text comprehension, the post-reading task requires students to answer comprehension questions or something similar. The oral reading component of the Eiken speaking test, for example, includes a post-reading question-and-answer task, based on which the examinees' speaking skills are tested. However, a post-reading task is not a mandatory component. In fact, the oral reading section of the TOEIC Speaking and Writing Tests does not require the examinee to perform a post-reading task because the section focuses entirely on the evaluation of pronunciation skills. Regarding the purposes of assessment, teachers should decide whether students

should perform an additional task after reading aloud.

6 Perspectives on Scoring Read-aloud Performance

6.1 Fluency and Accuracy

Evaluation of oral reading essentially entails observing the phonological features of performance. One perspective of characterizing such features involves examining the ‘fluency’ of oral reading. Fluency, in general, can be considered regarding the ease, eloquence, and smoothness of performance (Housen, Kuiken, & Vedder, 2012). In the assessment of oral reading fluency, the possible scoring indices are the rate of reading, pauses (number, location, and length), and dysfluency markers such as self-corrections, repetitions, and hesitation (Housen, Kuiken, & Vedder, 2012; Rakinski, 2003).

Oral reading accuracy is typically analysed according to learners’ reading errors, which include mispronunciations, substitutions, and omissions (Rakinski, 2003). Mispronunciations refer to errors made in the production of speech sounds (e.g. a failure to articulate an /s/ sound). Substitutions are errors in which learners replace one item (generally, a word) in text by another (Richards & Schmidt, 2010). An omission refers to an error in which the learner skips a word in the text.

Accuracy assessment considers the degree to which a student’s performance (or the ability to produce it) differs from the ‘ideal’ one (e.g. a scoring norm) (Housen, Kuiken, & Vedder, 2012). In the process of evaluating accuracy, acceptability and appropriateness of performance are also accounted for. In this view, for example, it is possible that a substitution made in oral reading may not be considered an error as long as it is ‘acceptable’. Suppose that a student reads aloud ‘I will do it *the next day*’ instead of ‘I will do it *tomorrow*’. In this case, the teacher may not regard it as a substitution error, because the overall meaning is unchanged and the student is highly likely to comprehend the sentence.

6.2 Analytic and Holistic Scoring

The methods of scoring reading-aloud performance can be classified into the following two general types: analytic and holistic. Analytic scoring evaluates the student's performance on a task according to its distinct features and assigns separate scores to each feature (Richards & Schmidt, 2010). In the case of an oral reading test, pronunciation, intonation, fluency, and accuracy may be assessed and scored separately. An example of a set of analytic scoring categories for EFL oral reading is shown in Table 1.⁶ In practice, for convenience, a total score is sometimes calculated by summing the individual analytic scores. However, in general, they are not combined but are presented separately in the form of a performance or test profile. The profile can be useful not only as feedback to students but also as diagnostic information for teachers to plan and improve their instruction (Genesee & Upshur, 1996). However, determining a separate score for each category can sometimes be complicated and time-consuming (Nakamura, 2004), particularly when the number of scoring categories is high.

In holistic scoring, on the other hand, a student's performance is not separated into distinct parts for assessment but is evaluated as a whole and assigned a single score (or a rating) according to a scoring guide (Genesee & Upshur, 1996; Richards & Schmidt, 2010). An example of a holistic scoring scale is presented in Table 2.⁷

One advantage of holistic scoring concerns practicality. The scoring process can be completed more quickly and easily compared with analytic scoring (Nakamura, 2004). This is of great benefit to teachers seeking to assess student performances efficiently.

However, in contrast to analytic scores, holistic scores do not indicate details about specific aspects of performance and, hence, contribute less to further improvement of teaching and learning (Genesee & Upshur, 1996). In addition, summarising specific aspects of performance into a single score is not always

easy when students' skills in the aspects are uneven. For a learner who reads aloud smoothly with highly intelligible pronunciation but with substantial inappropriate intonation, how to score the learner's performance seems debatable. If a holistic score is assigned to the performance, it could be misleading (Nakamura, 2004) and thus threaten the validity of the evaluation.

Holistic scores are typically determined based on teachers' overall impressionistic assessments or judgments. Analytic scores can be assigned either through teacher rating or some form of more 'objective' (or quantitative) measurement by, for instance, calculating the words read per minute, counting the number of pauses, and measuring the lengths of the pauses. Extracting quantitative data for a set of analytic evaluation categories from students' reading aloud can be time-consuming and difficult. However, with the help of computer software for speech analysis, it seems possible for the marking process to become quicker and easier.

Table 1

Example Analytic Scoring Scale

Pronunciation	Intonation	Fluency	Accuracy
3: Highly intelligible 2: Generally intelligible 1: Intelligible at times	3: Appropriate 2: Generally appropriate 1: Not appropriate	3: Smooth and relatively fast 2: Generally smooth, but occasionally slow 1: Slow, with frequent pauses	3: Very few errors 2: Some errors that are mostly minor 1: Many minor and major errors

Table 2

Example Holistic Scoring Scale

Score	Description
3	Reading pace is smooth, appropriate, and relatively fast with few mistakes in reading-aloud performance. Pronunciation is highly intelligible and intonation is appropriate.

2	Reads with occasional pauses but generally smooth. Makes some reading errors that are mostly minor. Pronunciation and intonation are generally intelligible and appropriate.
1	Reads with frequent pauses at a generally slow pace. Makes many reading errors, produces numerous unintelligible pronunciations, and uses inappropriate intonation.

7 Conclusion

This article has discussed several practical and theoretical topics concerning the use of oral reading as informal assessment in the context of foreign language teaching and learning. In the course of the discussion, the following points were presented:

1. Reading aloud has a dual nature: it comprises the internal processing of written information and the processing of language production. The act of reading aloud seems to be a type of ‘reading-and-speaking’ task. Therefore, the use of oral reading tests is not necessarily restricted to the assessment of reading skills. It is also possible to employ them in assessing the ‘mechanical’ skills of speaking (i.e. pronunciation and other phonological aspects of performance), as indicated in the previous sections.
2. When designing and implementing oral reading tests, teachers should be aware of what they want to accomplish with the test. One direction of assessment involves gaining information about the quality of student performance. Another direction entails inferring something about the internal processes of reading (i.e. lexical, grammatical and comprehension processing).
3. Procedures, methods and scoring criteria should be considered carefully to maximise the effectiveness of oral reading tests. Valid scoring scales should be devised in accordance with the testing purposes. A teacher

should determine whether student performance will be marked holistically or analytically; whether the assessment will focus on fluency, accuracy or both; and what measures of fluency and accuracy will be used. These should be accounted for when preparing performance descriptors in scoring scales.

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¹ This simplified model draws on Miyasako (2008) and Yonezaki and Ito (2012), who discussed and proposed models of oral reading processes in the context of Japanese learners of English. The model of Miyasako (2008) is based on a componential processing view of reading, which incorporates working memory and long-term memory as processing components. Yonezaki and Ito (2012), on the other hand, accounted for the dual nature of oral reading (i.e. containing elements of both reading and speaking) and discussed the process of reading aloud in terms of the model of speaking proposed by Levelt (1989). Yonezaki and Ito's model of oral reading omits the memory-related components. In the present article, our primary interest is in linguistic processing in reading aloud, not in a memory system. As with Yonezaki and Ito, therefore, our model covers only lexical, grammatical, and phonological processing components.

² The abbreviation stands for 'words per minute'.

³ In the model suggested in 2.1, it is presumed that speech output is possible without

comprehension.

⁴ Ikeda and Takeuchi (2002) and Miyasako (2002) used teacher impressionistic judgements in the process of assigning scores to the participants' performance.

⁵ Depending on their purposes, reading-aloud tests can be conducted without giving learners any preparation time. This type of oral reading demands the real-time coordinated use of the component skills of reading aloud. Tests involving reading aloud at first sight may place evaluative emphasis on a certain kind of spontaneity in performance. In considering the cognitive load of reading aloud, however, the first-sight oral reading tests should be used only with learners who have relatively high proficiency. If such tests are to be considered for lower-proficiency learners, as mentioned in 4.3, sufficient care should be taken to eliminate the cognitive burden that could negatively affect their performance (e.g. the use of an easy-level test passage).

⁶ This example scoring scale was devised by the author based on Nakamura (2004).

⁷ This example scoring scale was adapted from Rakinski (2003).